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HARRINGTON & SMITH, PC
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

EXAMINER	
MERED, HABTE	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/004,249	Applicant(s) SEXTON ET AL
	Examiner Habte Mered	Art Unit 2616

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 8/17/2007 has been entered and fully considered.

2. Claims 1-28 are pending in the instant Application. The independent claims are Claims 1, 7, 14, 18, and 21.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims **1-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel (US 6, 907, 243 B1), in view of Kondo (US 5, 748, 624) and Demjanenko et al (US Pub. No. 2002/0051501), hereinafter referred to as Demjanenko.

Patel teaches a method and system for dynamic soft handoff resource allocation in a wireless network.

5. Regarding **claims 1, 14, and 18**, Patel discloses a method for granting system access to mobile stations, comprising: receiving a call admission request from a mobile station at the edge of a cell **(See Figure 11 – The Figure describes a soft handoff and soft handoff occurs at the edge of a cell and soft handoff involves call admission request and resource allocation.)**; and granting system resources to the mobile station based at least in part on a bandwidth requirement of the mobile station, wherein for a mobile station having a high bandwidth requirement, the mobile station is preferentially granted system resources, *as compared to another mobile station having*

a lower bandwidth requirement **(See Figure 11 – mobile 580 with low bandwidth requirements has less preference than the high bandwidth mobiles 560 and 570 and see also Column 14:1-60),** by being assigned a plurality of time slots per frame for forming one radio information block **(See Column 5:15-20 – the cellular system can be TDMA and it is well known that TDMA supports time frames with multiple blocks)**

6. Regarding **claim 7**, Patel discloses a cellular communications system, comprising: a plurality of mobile stations located within at least one cell **(See Figures 1 and 11)**; a base transceiver station (BTS) for servicing the cell (See Figure 1, element 102); a base station controller (BSC) coupled to the BTS **(Base Stations 14 in Figure 1 is controlled by the BSC/Gateway)**; and a Call Admission processor coupled to the BTS for receiving a call admission request from mobile stations located in the cell served by the BTS **(Figure 2, elements 48, 34, and 32)** shows, the processor granting cellular communications system resources to the mobile stations based at least in part on level of service required by the mobile Stations and on a location of the mobile stations within the cell, wherein for a mobile station having a high bandwidth requirement that is determined to be located at the edge of the cell **(See Columns 2:45-50, 3:29-40, 7:9-16, 7:60-67, 9:55-65, and 14:1-60)**, the mobile station is preferentially granted system resources by being assigned a plurality of time slots per frame for forming one radio information block **(See Column 5:15-20 – the cellular system can be TDMA and it is well known that TDMA supports time frames with multiple blocks)**.

7. With respect to **claims 1, 7, 14, and 18**, Patel teaches that a new connection request with high quality of service requiring higher bandwidth is granted more system resources such as the portion of the frame that is allocated for the uplink and downlink and uses a precedence module **(See Figure 2)** to determine and guarantee if more resources can be made available to the new connection requesting higher bandwidth. **(See Column 14:1-60)** Patel however fails to expressly disclose a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot.

Kondo teaches an efficient method of time slot allocation for a communication in a TDMA communication system, which allocates one or more time slots in a TDMA frame.

Kondo discloses a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot. **(See Column 3:34-55 and Column 6:25-45 and See Figure 5, steps 510 and 512)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's method to incorporate a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot. The motivation

being mobile stations requiring higher bandwidth have higher transmission speed and need more time slots to transfer data in order to meet the quality service associated with the mobile stations as stated in Kondo in Column 1:58-64

8. With respect to **claims 1, 7, 14, and 18**, Patel teaches that various schemes of modulation can be used but fails to expressively disclose the modulation schemes are operated with a coding technique that employs an iterative decoding technique.

Demjanenko discloses a technique for coding and decoding signals used in data transmission over wired and wireless systems that use Turbo Codes.

Demjanenko teaches a system that is operated with a coding technique that employs an iterative decoding technique. **(See Paragraph 681; Demjanenko teaches the received signal is demodulated and a decoded bit stream is produced by iteratively decoding the demodulated signal.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's method to incorporate iterative decoding technique, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

9. Regarding **claims 2 and 8,** Patel teaches all aspects of the claimed invention as set forth in the rejection of claims 1 and 7 but fails to teach a method, wherein the mobile station is operated at a rate 3/4 16-QAM mobile station at a throughput of approximately K x 59.2 kbps, where K is the number of occupied time slots in the frame.

Demjanenko teaches that a mobile station is operated at a rate 3/4 16-QAM mobile station at a throughput of approximately K x 59.2 kbps, where K is the number of

occupied time slots in the frame. **(See Figures 19 and 61. See Paragraphs 289-304; Further Demjanenko discloses that in his system a maximum throughput of 6, 144 kbits can be achieved by far exceeding the Applicant's apparatus throughput. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's' apparatus to incorporate operating mobiles at a rate ¾ 16-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

10. Regarding **claims 4 and 10,** Patel teaches all aspects of the claimed invention as set forth in the rejection of claims 1 and 7 but fails to teach a method, wherein the mobile station is operated at a rate 5/6 64-QAM mobile station at a throughput of approximately K x 98.667 Kbps kbps, where K is the number of occupied time slots in the frame.

Demjanenko teaches that a mobile station is operated at a rate 5/6 64-QAM mobile station at a throughput of approximately K x 98.667 kbps, where K is the number of occupied time slots in the frame. **(See Figure 46. See Paragraphs 426-443; Further Demjanenko discloses that in his system a maximum throughput of 6, 144 kbits can be achieved by far exceeding the Applicant's apparatus throughput. Data**

throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate operating mobiles at a rate 5/6 64-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

11. Regarding **claims 5, 11, and 15**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claims 1, 7, and 14 but fails to teach a method wherein the modulation format is selected from one of GMSK, 8-PSK, rectangular 16 gray coded QAM, 64 gray coded QAM, and 32 cross-QAM.

Demjanenko teaches a method wherein the modulation format is selected from one of GMSK, 8-PSK, rectangular 16 gray coded QAM, 64 gray-coded QAM, and 32 cross-QAM. **(See Paragraphs 2, 146, 349 and Figure 46)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate the ability to select modulation format as discussed above, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

12. Regarding **claims 6, 12, and 16**, Patel discloses a method wherein the radio information block comprises four TDMA frames and occupies K slots per TDMA frame, wherein the radio information block size is equal to N=464.times.K.times.throughput

bits, where the throughput is equal to the number of information bits per data symbol. **(Patel teaches that variable number of resources can be assigned to a user terminal. Patel supports TDMA and time frames contain any number of timeslots. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

13. Regarding **claims 13 and 17**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claims 7 and 14 but fails to teach wherein the iterative coding technique comprises a turbo code, the turbo code being implemented with two n-state identical recursive systematic convolutional encoders (13_8,15_8) that are combined in parallel through a pseudo-random bit interleaver.

Demjanenko teaches a method wherein the iterative coding technique comprises a turbo code, the turbo code being implemented with two n-state identical recursive systematic convolutional encoders that are combined in parallel through a pseudo-random bit interleaver. **(See Figure 76 and Paragraph 667)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate iterative decoding technique comprising turbo code, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

14. Regarding **claim 19**, Patel discloses a method, wherein the mobile station is located at the cell edge, and further comprising adjusting the granted system resources as the mobile station changes its location within the cell **(See Figure 11 – The Figure describes a soft handoff and soft handoff occurs at the edge of a cell and soft**

handoff involves call admission request and resource allocation), and retaining the granted system resources as the mobile station transitions to an edge of another cell. **(See Column 14:1-60)**

15. Regarding **claim 20**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 18 but fails to teach a method wherein the iterative decoding technique uses a turbo code.

Demjanenko teaches a method wherein the iterative decoding technique uses a turbo code. **(See Paragraphs 664, 667, 674, and 681. Demjanenko discloses a turbo decoder that uses iterative decoding technique.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate iterative decoding technique that uses turbo code, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

16. **Claims 3 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel in view of Kondo and Demjanenko as applied to claims 1 and 7 above, and further in view of Raghavan et al (US Pub. No. 2003/0134607), hereinafter referred to as Raghavan.

The combination of Patel, Kondo and Demjanenko, teaches all aspects of the claimed invention as set forth in the rejections of claims 1 and 7 but does not disclose a method, wherein the mobile station is operated as a rate 4/5 32-QAM mobile station at a throughput of approximately K.times.78.93 kbps, where K is the number of occupied time slots in the frame.

Raghavan teaches a multi-channel communications transceiver that uses any combination of modulation systems such as PAM and QAM.

Raghavan discloses a method, wherein the mobile station is operated as a rate 4/5 32-QAM mobile station at a throughput of approximately K.times.78.93 kbps, where K is the number of occupied time slots in the frame. **(See Paragraphs 24, 83, 85, and 114. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Patel's and Demjanenko's apparatus to incorporate operating mobiles at a rate 4/5 32-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

17. Regarding **claim 21**, Patel discloses a control unit **(Figure 2, elements 32, 34, and 48)** coupled to a wireless transceiver in a cellular communication network, comprising a resource granting unit that is responsive to receiving a call admission request **(Figure 2, element 34)** from a mobile station located near a cell edge **(See Figure 11 – The Figure describes a soft handoff and soft handoff occurs at the edge of a cell and soft handoff involves call admission request and resource allocation.)** to grant system resources to the mobile station based at least in part on a bandwidth requirement of the mobile station, where for a mobile station having a high bandwidth requirement the resource granting unit preferentially grants system

resources, as compared to another mobile station requesting call admission and having a lower bandwidth requirement **(Column 14:1-60 and See Figure 11 – mobile 580 with low bandwidth requirements has less preference than the high bandwidth mobiles 560 and 570 and see also Column 14:1-60)**.

Patel however fails to expressly disclose a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot.

Kondo discloses a control unit tat uses a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot. **(See Column 3:34-55 and Column 6:25-45 and See Figure 5, steps 510 and 512)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's control unit to incorporate a method where a mobile station, with a higher bandwidth requirement, requesting call admission is assigned a plurality of time slots per frame while a mobile station, with a lower bandwidth requirement, requesting call admission is assigned a single time slot. The motivation being mobile stations requiring higher bandwidth have higher transmission speed and need more time slots to transfer data in order to meet the quality service associated with the mobile stations as stated in Kondo in Column 1:58-64

Patel fails to disclose a control unit that is operated with a coding technique that employs an iterative decoding technique.

Demjanenko teaches a control unit that is operated with a coding technique that employs an iterative decoding technique. **(See Paragraph 681; Demjanenko teaches the received signal is demodulated and a decoded bit stream is produced by iteratively decoding the demodulated signal.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel 's control unit to incorporate iterative decoding technique, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

18. Regarding **claim 22**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 21 but fails to teach a control unit, where the mobile station is operated at a rate 3/4 16-QAM mobile station at a throughput of approximately K x 59.2 kbps, where K is the number of occupied time slots in the frame.

Demjanenko teaches that a mobile station is operated at a rate 3/4 16-QAM mobile station at a throughput of approximately K x 59.2 kbps, where K is the number of occupied time slots in the frame. **(See Figures 19 and 61. See Paragraphs 289-304; Further Demjanenko discloses that in his system a maximum throughput of 6, 144 kbits can be achieved by far exceeding the Applicant's apparatus throughput. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate operating mobiles at a rate ¾ 16-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

19. Regarding **claim 24**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 21 but fails to teach a control unit, wherein the mobile station is operated at a rate 5/6 64-QAM mobile station at a throughput of approximately K x 98.667 Kbps, where K is the number of occupied time slots in the frame.

Demjanenko teaches that a mobile station is operated at a rate 5/6 64-QAM mobile station at a throughput of approximately K x 98.667 kbps, where K is the number of occupied time slots in the frame. **(See Figure 46. See Paragraphs 426-443; Further Demjanenko discloses that in his system a maximum throughput of 6, 144 kbits can be achieved by far exceeding the Applicant's apparatus throughput. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate operating mobiles at a rate 516 64-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain

offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

20. Regarding **claim 25**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 21 but fails to teach a control unit, wherein the modulation format is selected from one of GMSK, 8-PSK, rectangular 16 gray coded QAM, 64 gray coded QAM, and 32 cross-QAM.

Demjanenko teaches a method wherein the modulation format is selected from one of GMSK, 8-PSK, rectangular 16 gray coded QAM, 64 gray-coded QAM, and 32 cross-QAM. **(See Paragraphs 2, 146, 349 and Figure 46)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate the ability to select modulation format as discussed above, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

21. Regarding **claim 27**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 21 but fails to teach a control unit, wherein the iterative coding technique comprises a turbo code, the turbo code being implemented with two n-state identical recursive systematic convolutional encoders (138,158) that are combined in parallel through a pseudo-random bit interleaver.

Demjanenko teaches a control unit wherein the iterative coding technique comprises a turbo code, the turbo code being implemented with two n-state identical recursive systematic convolutional encoders that are combined in parallel through a pseudo-random bit interleaver. **(See Figure 76 and Paragraph 667)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate iterative coding technique comprising turbo code, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

22. Regarding **claim 28**, Patel teaches all aspects of the claimed invention as set forth in the rejection of claim 21 but fails to teach a control unit, wherein the iterative coding technique comprises at least one parallel or serial concatenated code turbo channel coding.

Demjanenko teaches a control unit wherein the iterative coding technique comprises at least one parallel or serial concatenated code turbo channel coding. **(See Paragraph 119)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Patel's apparatus to incorporate iterative coding technique comprising at least one parallel or serial concatenated code turbo channel coding, the motivation being to ensure that the extra coding gained by Turbo Codes is realized.

23. **Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel in view of Kondo and Demjanenko as applied to claim 21 above, and further in view of Raghavan et al (US Pub. No. 2003/0134607), hereinafter referred to as Raghavan.

The combination of Patel, Kondo and Demjanenko, teaches all aspects of the claimed invention as set forth in the rejections of claim 21 but does not disclose a control unit, wherein the mobile station is operated as a rate 4/5 32-QAM mobile station

at a throughput of approximately K.times.78.93 kbps, where K is the number of occupied time slots in the frame.

Raghavan discloses a control unit, wherein the mobile station is operated as a rate 4/5 32-QAM mobile station at a throughput of approximately K.times.78.93 kbps, where K is the number of occupied time slots in the frame. **(See Paragraphs 24, 83, 85, and 114. Data throughput is a function of SNR and channel characteristics (Gaussian or Raleigh) and the expected BER further constraints the system.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Patel's, Kondo's and Demjanenko's apparatus to incorporate operating mobiles at a rate 4/5 32-QAM, the motivation being to use turbo codes that outperform all previously known coding schemes regardless of the targeted channel where the extra coding gain offered by these codes can be used to save bandwidth or reduce power requirements in the link budget.

24. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel in view of Kondo and Demjanenko as applied to claim 21 above, and further in view of Leung et al (US 7, 124, 193), hereinafter referred to as Leung.

Leung teaches link adaptation and power control in a wireless packet network.

The combination of Patel, Kondo and Demjanenko, teaches all aspects of the claimed invention as set forth in the rejections of claim 21 but does not disclose a control unit, wherein the radio information block comprises four TDMA frames and occupies K slots per TDMA frame, wherein the radio information block size is equal to

N=464.times.K.times.throughput bits, where the throughput is equal to the number of information bits per data symbol.

Leung discloses a control unit, wherein the radio information block comprises four TDMA frames and occupies K slots per TDMA frame, wherein the radio information block size is equal to N=464.times.K.times.throughput bits, where the throughput is equal to the number of information bits per data symbol. **(See Column 4:46-60)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Patel's, Kondo's and Demjanenko's apparatus to incorporate a control unit, wherein the radio information block comprises four TDMA frames and occupies K slots per TDMA frame, wherein the radio information block size is equal to N=464.times.K.times.throughput bits, where the throughput is equal to the number of information bits per data symbol. The motivation to use a radio information block comprising four TDMA frames that occupies K slots per TDMA frame is to implement the ubiquitous wireless packet network called EGPRS (Enhanced General Packet Radio Services) as stated in Leung's Column 1:38-40.

Response to Arguments

25. Applicant's arguments with respect to all independent claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following US Patents are cited to show the state of the art with respect to high-speed data transmission in a digital mobile communication system using multi-slot mobiles:

US Patent (6, 016, 311) to Gilbert et al

US Patent (6, 148, 209) to Hamalainen et al

The following US Patent Application Publications are cited to show the state of the art with respect to modulation techniques used in wireless communications:

US Pub. No. (2005/0002468) to Walton et al

US Pub. No. (2005/0053030) to Zehavi

US Pub. No. (2005/0097424) to Golitschek et al

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on 571 272 7629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HM
9-15-2007

DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600